

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the Application:

Listing of Claims:

Claims 1-14 (canceled)

Claim 15 (New) A hydrogel adhesive for attachment to mammalian skin, said adhesive comprising:

- a) from 10 weight percent to 60 weight percent of a cross-linked hydrophilic polymer;
- b) from 5 weight percent to 80 weight percent of a water-soluble non-ionic humectant; and,
- c) from 10 weight percent to 85 weight percent water,

wherein said hydrophilic polymer comprises from 1 mole percent to 50 mole percent of at least one strong-acid monomer having a pKa less than 3 and from 50 mole percent to 99 mole percent of at least one weak-acid monomer having a pKa greater than 3, said strong-acid monomer being essentially its salt form, and said weak-acid monomer being at least 50 mole percent in its acid form and at least 5 mole percent in its salt form.

Claim 16 (New) The hydrogel adhesive of Claim 15, wherein said adhesive has a pH ranging from 3 to 6.

Claim 17 (New) The hydrogel adhesive of Claim 16, wherein said hydrophilic polymer further comprises from 5 mole percent to 45 mole percent of at least one strong acid monomer having a pKa less than 3, and from 60 mole percent to 95 mole percent of at least one weak-acid monomer having a pKa greater than 3.

Claim 18 (New) The hydrogel adhesive of Claim 17, wherein said weak acid monomer comprises from 60 mole percent to 90 mole percent of its acid form and from 10 mole percent to 40 mole percent of its salt form.

Claim 19 (New) The hydrogel adhesive of Claim 18, wherein said strong-acid monomer is selected from the group consisting of 2-acrylamido-2-methylpropanesulfonic acid, 3-sulfopropyl (meth)acrylate, 2-sulfoethyl (meth)acrylate, and combinations thereof, and said weak-acid monomer is selected from the group consisting of acrylic acid, methacrylic acid, and combinations thereof.

Claim 20 (New) The hydrogel adhesive of Claim 19, wherein said hydrogel adhesive has a pH ranging from 3 to 5.5.

Claim 21 (New) The hydrogel adhesive of Claim 15, wherein said water-soluble nonionic humectant is polyhydric alcohol.

Claim 22 (New) The hydrogel adhesive of Claim 15, wherein said adhesive is disposed upon a wearer facing surface of a disposable human waste management device, said waste management device comprising a bag, said bag comprising an aperture and a flange surrounding said aperture, said flange comprising said wearer facing surface and a garment facing surface.

Claim 23 (New) The hydrogel adhesive of Claim 15, wherein said adhesive is disposed upon a wearer facing surface of an absorbent article, said absorbent article comprising said wearer facing surface and a garment facing surface.

Claim 24 (New) A hydrogel adhesive comprising:

- a) from 10 weight percent to 60 weight percent of a cross-linked hydrophilic polymer;
- b) from 5 weight percent to 80 weight percent of a glycerol humectant; and,
- c) from 10 weight percent to 85 weight percent of water;

wherein said hydrophilic polymer comprises from 8 mole percent to 30 mole percent of a 2-acrylamido-2-methylpropanesulfonic acid-based monomer and from 70 mole percent to 92 mole percent of an acrylic acid-based monomer, said acrylic-based monomer being from 20 mole percent to 40 mole percent in its salt form; and,
wherein said adhesive has a pH ranging from 3.5 to 5.

Claim 25 (New) The hydrogel adhesive of Claim 24, said adhesive having a water activity ranging from 0.35 to 0.95.

Claim 26 (New) The hydrogel adhesive of Claim 24, said adhesive having an elastic modulus at 25°C, G'_{25} , and a viscous modulus at 25°C, G''_{25} ;

- a) wherein said G'_{25} (1rad/sec) ranges from 400 Pa to 20,000 Pa;
- b) wherein said G''_{25} (1rad/sec) ranges from 100 Pa to 15,000 Pa; and,
- c) wherein the ratio G''_{25} (1rad/sec)/ G'_{25} (1rad/sec) ranges from 0.1 to 1.

Claim 27 (New) The hydrogel adhesive of Claim 24, wherein said adhesive has a contact angle of at least 40 degrees.

Claim 28 (New) The hydrogel adhesive of Claim 24, said adhesive having a peel force on dry skin ranging from 0.3N/cm to 4N/cm, or a peel force on PET ranging from 0.2N/cm to 3.5 N/cm.

Claim 29 (New) The hydrogel adhesive of Claim 24;

- a) wherein said adhesive has a water activity ranging from 0.45 to 0.75;
- b) wherein said adhesive has a contact angle of at least 60 degrees;
- c) wherein said adhesive has a peel force on dry skin ranging from 1N/cm to 3 N/cm or a peel force on PET ranging from 0.3N/cm to 3.0N/cm; and,
- d) wherein said adhesive has an elastic modulus at 25°C, G'_{25} , and a viscous modulus at 25°C, G''_{25} ;
 - i) wherein said G'_{25} (1 rad/sec) ranges from 2,000 Pa to 6,000 Pa;
 - ii) wherein said G''_{25} (1 rad/sec) ranges from 1,000 Pa to 4,000 Pa; and,
 - iii) wherein the ratio G''_{25} (1 rad/sec)/ G'_{25} (1 rad/sec) ranges from 0.35 to 0.65.

Claim 30 (New) The hydrogel adhesive of Claim 24, wherein said adhesive is disposed upon a wearer facing surface of a disposable human waste management device, said waste management device comprising a bag, said bag comprising an aperture and a flange surrounding said aperture, said flange comprising said wearer facing surface and a garment facing surface.

Claim 31 (New) The hydrogel adhesive of Claim 24, wherein said adhesive is disposed upon a wearer facing surface of an absorbent article, said absorbent article comprising said wearer facing surface and a garment facing surface.